

CRY3203

1/2" Free-field Prepolarized High-sensitivity Microphone

Features

- **Key Specifications**

Sensitivity	50 mV/Pa
Dynamic Range	16 dB to 146 dB
Frequency Range	3.15 Hz to 20 kHz ± 2 dB

- **Applications**

Anechoic chamber test
Electroacoustic test
Noise test

- **Standards**

IEC 61094 4:1995 Measurement microphones – Part 4

Introduction

CRY3203 is a 1/2" free field prepolarization measurement microphone that is widely used in acoustic test environments such as anechoic and quiet rooms.

It has a frequency response range that matches the auditory frequency range of the human ear and is very suitable for noise detection. In addition, it is widely used in various fields such as electroacoustic measurement, audio measurement and acoustic research.

Highlights

- **Use of High-sensitivity Free-field Microphones**

High -sensitivity microphone have a broad measure-ment frequency range and are applicable to a variety of measurement scenarios.

Free-field microphone are specifically designed for measurements in environments that are free from reflections or echoes and are widely used in fields such as acoustic research, noise monitoring, and sound system testing.

- **Compatibility**

The CRY3203 measuring microphone is compatible with the IEPE preamplifier of CRY SOUND.

IEPE is a universal constant current source power supply technology used on sensors. Each manufacturer has different names, such as ICP, CCP, etc.

- **Calibration**

Each CRY SOUND microphone is calibrated at the factory using traceable calibration equipment. Calibration certificates are provided with each unit. CRY SOUND recommends recalibration at least once a year.

- **Quality & Warranty**

All CRY SOUND microphone capsules use 3rd generation titanium diaphragms and protection grids and synthetic sapphire insulators – resulting in the most rugged and reliable measurement microphones on the market. Titanium provides superior corrosion resistance, high temperature stability, impact resistance and strength-to-mass than traditional nickel and stainless steel. All capsules are assembled in strict clean-room environments for maximum quality.

CRY SOUND microphones are supported by a 10-year warranty—offering one of the best service guarantee in the world.

Technical Specifications

Specifications

Field Type	Free-field
Sensitivity(± 1.5 dB)	50 mV/Pa, -26 dB re 1V/Pa
Frequency Response	3.15 Hz to 20 kHz ± 2 dB
Polarization Voltage	0 V
Capacitance	15 pF (@250 Hz)
Dynamic Range(re.20uPa)	16 dB to 146 dB
Inherent noise	16 dBA
Operating Temperature	-30°C to +80°C (-22°F to +176°F)
Temperature Stability	0.012 dB/°C (-10°C to +50°C) 0.007 dB/°F (+14°F to +122°F)
Static Pressure Stability	-0.01 dB/kPa
Operating Humidity Range	0 to 90%RH no condensation
Humidity Stability	< 0.1 dB (0 to 90%RH no condensation)
Pressure Equalization Vent	Rear vented
IEC 61094-4 Type	WS2F

Dimensions

Height with Grid	16.2 mm (0.64")
Diameter with Grid	13.2 mm (0.52")

Ordering Information

TEDS Combinations

Microphone Set	CRY3203-S01 Microphone Set (CRY3501 IEPE Preamplifier) CRY3203-S02 Microphone Set (CRY3503 IEPE Preamplifier)
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Optional Accessories

Preamplifier	CRY3541 1/4" SMB Interface CRY3502 1/2" SMB Interface
Microphone Holder	1/2" Microphone Holder
Adapter	TA0502 1/4" to 1/2" Adapter Ring
Power Supply	CRY575 Three-channel Microphone Power Supply

Drawings(mm)[inch]

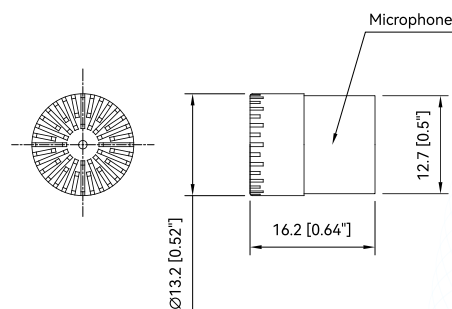


Fig.1 CRY3203 Microphone Drawings

Frequency Response

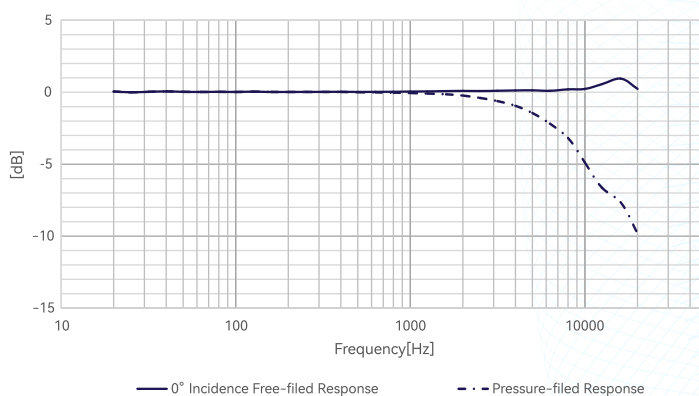


Fig.2 CRY3203 Microphone Typical Frequency Response

Related Products

CRY3101	1" free-field prepolarized low-noise microphone, 50 mV/Pa, 4 Hz-16kHz, 12 dB-146 dB
CRY3201	1/2" free-field prepolarized high-frequency microphone, 12.5 mV/Pa, 3.15 Hz-40 kHz, 23 dB-160 dB
CRY3202	1/2" pressure-field prepolarized wide-frequency microphone, 12.5 mV/Pa, 3.15 Hz-20kHz, 23 dB-160 dB
CRY3403	1/4" free-field prepolarized high-frequency microphone, 4 mV/Pa, 4 Hz-90kHz, 35dB-165dB